

DIODE-PUMPED SOLID-STATE LASER GAIN MODULE

ABSTRACT

A laser gain device (10) holds a laser slab (60) which is pumped by pump energy from at least one diode array assembly (24). An angle at which pump energy from the diode array assembly (24) impinges the laser slab (60) is adjustable via angle adjustment means. The laser slab (60) is mounted between edge bars (62, 64) which have laser slab spacers (84) extending therethrough, allowing laser slabs (60) of different widths to be mounted within the laser gain device (10). One or more pump energy shields (88, 90) are used to control the amount of pump energy entering the laser slab (60), and cooling liquid conduits (100) are provided throughout components of the laser gain device (10), serving to conductively cool a heat shield (12).